

SECOND RE-SUBMISSION FILED ON NOVEMBER 13, 2006,
IN APPLICATION SERIAL NO. 10/004,154

F-6369

Ser. No. 09/453,132

IN THE CLAIMS:

Please cancel claims 1, 2 and 5-7 without prejudice and add the following claims.

-- 8. A cutting insert having a longitudinal axis comprising:

a substantially conical tip;

a transition region connected to the substantially conical tip having a periphery, an even number plurality of spatial areas and a plurality of cutting edges between the spatial areas;

a foot connected to the transition region; and

the plurality of spatial areas being curved concavely in a direction from the foot to the conical tip;

wherein the plurality of spatial areas are distributed over the periphery of the transition region and adjoin one another to form the plurality of cutting edges.

9. The cutting insert of claim 8, wherein the plurality of spatial areas are also curved concavely in a circumferential direction of the cutting insert.

10. The cutting insert of claim 9, wherein the plurality of spatial areas are inclined to enclose an acute angle with the longitudinal axis at a portion thereof adjacent the conical tip.

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11. The cutting insert of claim 8, wherein the plurality of spatial areas are inclined to enclose an acute angle with the longitudinal axis at a portion thereof adjacent the conical tip.

12. The cutting insert of claim 8, wherein the plurality of spatial areas are flat in a circumferential direction of the cutting insert.

13. The cutting insert of claim 12, wherein the plurality of spatial areas are inclined to enclose an acute angle with the longitudinal axis at a portion thereof adjacent the conical tip.

14. A cutting insert having a longitudinal axis comprising:

a substantially conical tip;

a transition region connected to the substantially conical tip having a periphery, an even number plurality of spatial areas and a plurality of cutting edges between the spatial areas;

a foot connected to the transition region; and

the plurality of spatial areas being curved concavely in a circumferential direction of the cutting insert;

wherein the plurality of spatial areas are distributed over the periphery of the transition region and adjoin one another to form the plurality of cutting edges.

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15. The cutting insert of claim 14, wherein the plurality of spatial areas are inclined to enclose an acute angle with the longitudinal axis at a portion thereof adjacent the conical tip.

16. A lathe chisel having a longitudinal axis comprising:

a head;

a tool body having a shaft cooperating with the head and configured for rotatable mounting; and

a cutting insert including:

a substantially conical tip;

a transition region connected to the substantially conical tip having a periphery, an even number plurality of spatial areas and a plurality of cutting edges between the spatial areas;

a foot connected to the transition region and fixedly connected with the head; and

the plurality of spatial areas being curved concavely in a direction from the foot to the conical tip;

wherein the plurality of spatial areas are distributed over the periphery of the transition region and adjoin one another to form the plurality of cutting edges.

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17. The lathe chisel of claim 16, wherein the head has a plurality of head edges and a plurality of head areas distributed over a periphery of the head, said plurality of head areas adjoin one another to form the plurality of head edges.

18. The lathe chisel of claim 17, wherein the plurality of spatial areas and the plurality of cutting edges are offset to the plurality of head edges.

19. The lathe chisel of claim 16, wherein the plurality of spatial areas are also curved concavely in a circumferential direction of the cutting insert.

20. The lathe chisel of claim 19, wherein the plurality of spatial areas are inclined to enclose an acute angle with the longitudinal axis at a portion thereof adjacent the conical tip.

21. The lathe chisel of claim 16, wherein the plurality of spatial areas are inclined to enclose an acute angle with the longitudinal axis at a portion thereof adjacent the conical tip.

22. The lathe chisel of claim 16, wherein the plurality of spatial areas are flat in a circumferential direction of the cutting insert.

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23. A lathe chisel having a longitudinal axis comprising:

a head;

a tool body having a shaft cooperating with the head and configured for rotatable mounting; and

a cutting insert including:

a substantially conical tip;

a transition region connected to the substantially conical tip having a periphery, an even number plurality of spatial areas and a plurality of cutting edges between the spatial areas;

a foot connected to the transition region and fixedly connected with the head; and

the plurality of spatial areas being curved concavely in a circumferential direction of the cutting insert;

wherein the plurality of spatial areas are distributed over the periphery of the transition region and adjoin one another to form the plurality of cutting edges.

24. The lathe chisel of claim 23, wherein the head has a plurality of head edges and a plurality of head areas distributed over a periphery of the head, said plurality of head areas adjoin one another to form the plurality of head edges.

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25. The lathe chisel of claim 24, wherein the plurality of spatial areas and the plurality of cutting edges are offset to the plurality of head edges.

26. The lathe chisel of claim 23, wherein the plurality of spatial areas are also curved concavely in a circumferential direction of the cutting insert.

27. The lathe chisel of claim 23, wherein the plurality of spatial areas are inclined to enclose an acute angle with the longitudinal axis at a portion thereof adjacent the conical tip.

28. The lathe chisel of claim 23, wherein the plurality of spatial areas are inclined to enclose an acute angle with the longitudinal axis at a portion thereof adjacent the conical tip.--